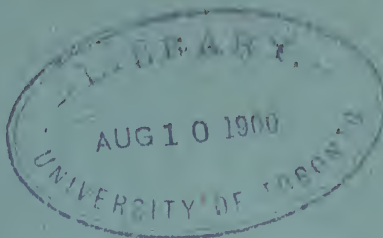


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PROCEEDINGS

Journal
OF THE MICHIGAN
SCHOOLMASTERS'
CLUB AT THE
THIRTY-SECOND
MEETING HELD IN
YPSILANTI
MARCH 31 AND
APRIL 1, 1899



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Ann Arbor
University of Michigan
1899

MICHIGAN SCHOOLMASTERS' CLUB.

PROCEEDINGS OF THE THIRTY-SECOND MEETING, HELD AT
YPSILANTI, MARCH 31 AND APRIL 1, 1899.

SECRETARY'S MINUTES.

THE FRIDAY SESSIONS.

The thirty-second meeting of the Michigan Schoolmasters' Club was called to order by the President, Mr. E. C. Warriner, at 9 o'clock, Friday morning, March 31, 1899. The Classical Conference had been in session on the previous afternoon, but the sessions of the Club proper did not begin until the time above stated. President Warriner, after announcing the opening of the session, invited Professor B. L. D'Ooge of Ypsilanti to act as Chairman for the morning. Professor D'Ooge therefore took the chair and introduced Professor Thomas D. Seymour of Yale University, who gave to a large audience a lecture on A Midsummer Trip to The Lands of Hellas, accompanied by stereopticon views.

At the close of the lecture President Warriner resumed the chair. A motion that the President appoint a committee of three on nominations to report at the business session on Saturday was carried, and the President announced that he would report the names of the committee at the close of the morning session.

The next topic for the morning being then taken up, Professor C. O. Hoyt of the Michigan State Normal College read a paper on The Period of Adolescence. The discussion of this paper was led by Superintendent S. B. Laird of Lansing. At the close of Mr. Laird's discussion, President Warriner announced the following committee on nominations: Professor J. H. Drake, chairman; Professor E. A. Lyman, and Principal S. O. Hartwell. The Club then adjourned for the morning. The afternoon was given up to conferences of various kinds, as announced in the programme. These were all largely attended and the interest in them was keen.

In the evening Normal Hall was again filled to hear the address of Superintendent L. H. Jones of Cleveland on Higher Ideals in Education. At the close of the lecture a reception was tendered the Club and its visitors by the Faculty of the Normal College, in the Gymnasium.

THE SATURDAY SESSION.

The general session of the Club was resumed at 9:30 Saturday morning, April 1, President Warriner in the chair. The first paper of the morning was by Professor George Hempl of the University of Michigan, upon the subject, Should the College Course be Shortened to Three Years? Other papers on the same subject were read by Professor F. W. Kelsey, and by ex-Regent Levi L. Barbour of Detroit. A short recess was then taken. After the recess the business session was called to order, and the report of the nominating committee, appointed on the previous day, was called for and given by Professor Drake, chairman of the committee. The following officers were nominated for the ensuing year: President, W. H. Sherzer of Ypsilanti;

Vice-President, E. T. Austin of Owosso; Secretary, J. H. Harris of Bay City; Treasurer, R. S. Garwood of Marshall; Members of Executive Committee, E. O. Marsh of Jackson and Professor A. C. McLaughlin of Ann Arbor. On motion, the report of the nominating committee was accepted and approved, and the officers, as nominated, were declared elected.

The question of the publication of the proceedings of the Schoolmasters' Club was then taken up, and Professor F. N. Scott explained the arrangement that had been made with the Board of Regents for the publication of the proceedings in the *University News-Letter*. The Board of Regents had agreed to appropriate seventy dollars for this purpose, the Schoolmasters' Club to appropriate the balance necessary. On motion, it was voted to appropriate thirty dollars from the Club funds for the publication of the proceedings as a supplement to the *News-Letter*.

Superintendent S. B. Laird then introduced the following resolution, which was unanimously adopted;

WHEREAS, There is now pending before the legislature of the State of Michigan a bill which has for its purpose a change in the organization of the public school system of the city of Detroit; therefore be it

Resolved, By the Michigan Schoolmasters' Club in convention assembled, that we heartily indorse said measure as being calculated to advance in the best way the educational interests of the state; and be it further

Resolved, That we urge upon the members of the legislature the passage of said bill.

Bibliographic Instruction in the High School was the subject of the closing paper of the session, read by Mr. B. A. Finney, Assistant in the General Library of the University, and discussed by Librarian H. M. Utley of Detroit.

At the close of the discussion, the Club adjourned to meet at Ann Arbor in the Fall.

J. H. HARRIS, Secretary.

THE HIGHER IDEALS IN EDUCATION.

EXTRACTS FROM AN ADDRESS BY SUPERINTENDENT L. H. JONES OF CLEVELAND.

In the profession of teaching we are liable to an error in the discussion of principles. A single principle, projected to the front and emphasized beyond its worth by some eccentric thinker, seems so absurd that we perhaps reject it from our ideal of education without due consideration. The failure to see its relation to other spiritual forces and its necessity as their correlate leads to its rejection. A broader view would perhaps discover its necessary relation to other educational principles and suggest its value in a final correlation of the educational influences which produce the best development of the individual.

Life, for which we educate, is complex, million-sided; hence the process by which a mind is prepared to live well is likely to be somewhat complex, too. Our profession requires clear thinking and sound judgment, not only among those who direct its general processes but scarcely less in those who carry out the detailed work of the school room. There is a fascination about educational studies which easily leads us to be one-sided. One person becomes absorbed in the contemplation of education as a science; another equally so in some one branch of the curriculum, to the practical exclusion of more general considerations.

It is a notable moment in the professional progress of a teacher when he fully comprehends that the subject-matter assigned to him is a mere means, to be used for the purpose of directing most forcefully the life-development of

his pupils. Instead of weakening his interest in these branches, this view deepens such interest, and leads him to ponder well the relations of his subject to this life-development—leads him to view his subject as a causative agent at work, rather than as a dry compend of facts to be learned.

Every detail of the busiest day of the teacher in any grade is profoundly influenced by his ideals of life and of education. We can not if we would, we doubtless would not if we could, free ourselves from the overpowering influence of ideals. The ideal is the only universal force, since it alone affects self-active, self-conscious and self-directive beings. They in turn control the universe.

I have said that an ideal consists of a trinity of attributes; that it is law, guide and inspirer. In the first form—as law—it acts somewhat blindly; that is, without the intelligent co-operation of its subject. In such a case it is the creation of a superior intellect imposed in the form of law of development upon an inferior. The theory of evolution has aided modern scientific research by its discovery of the ideal of the Creator, operating in the physical world as law of development. God's ideal is present in the world as a living force, controlling dead matter, and shaping it after a pattern unknown to the world itself. The teacher who imposes his own ideals upon a pupil in the form of law, not illuminated with intelligence, touched with emotion, tempered with sympathy, treats him as dead matter rather than a living soul. He fails also to mark the difference between matter and spirit; for only when he transplants within the child the germ of an ideal of his own so that it may develop with the child's development, grow with his growth, and remain as a living force within him after the teacher's power is withdrawn, does he recognize either the true nature of the child as a spiritual being, or of the nature of the ideal as guide and inspiration.

In the world ideal as controlled by thinking there are represented four classes of thinking, standing for four classes of people. The first class is composed of people who have not passed beyond the childish stage of thinking. They are interested in *things*. Each object, whether it is a material thing or a spiritual fact, seems to these people an independent existence. They are chiefly interested in noting its characteristics. The childish stage of curiosity which leads a child after he has played with his toy until he is tired of it to take it to pieces to see what is within it, is the highest view of this grade of thinking, because it does *begin* to search somewhat for relationship of cause and effect.

The second class of thinkers perceive quite fully that *things* are not more important than their *relations*,—indeed that in some instances the relations are the more important matters. The interest of such persons grows as important relations manifest themselves in the study of things. It is a great increase in intelligence to see that activities exist as causal relations, and to discover the laws of the operations of natural forces. A glimpse at the orderly movements of the forces of nature is thus given and the elements of a science of the world are seen. But this grade of thinking never rises to a true self-active cause. It rests its conclusions on contingency—some things happen to get into conjunction—this establishes causative relations—these generate or liberate forces, and these move the stars in their courses and keep the world spinning on its axis. Similar reasoning in the moral and social world sees psychical phenomena in action and reaction. It records results, systematizes facts and develops the first stages of science; but it leaves all questions of true causation still unsettled.

The third grade of thinking makes a distinct advance. It holds the same interest in things as the first and sets a like value upon relations with the second. But it makes a definite effort to see causes and to find unities. It discovers that beyond the movement of things in their relations, there must be a power which gives law to the contending forces and limits results. People have given various names to this Power. It has been called the great Unknown. Others have called it persistent force. Outside the series of things and forces, stands this persistent force, the protector and supporter of the individual forces and processes of the moral and physical worlds—explaining them all, but needing an explanation for itself more than they needed it. It is the highest conclusion that can be reached by any process of reasoning which takes into account the external world as the chief element of existence.

The fourth and highest grade of thinking sees the futility of seeking an explanation of the universe externally. It begins its investigation with the self. The investigator must so examine himself as to be able to discover three characteristic attributes of spirit, viz., self-activity, self-consciousness, and self-direction. If one cannot find the elements of these in himself, he need never seek for them elsewhere. By the necessary study of one's self there is little difficulty in finding that one does, actually, of his own will, *begin* to do things; that is, he originates activity—becomes the source of activity in response to an *inner impulse*, instead of a mere piece of matter responsive to *environment*. One who does not find himself thus doing things does not have a very true conception of self-activity. He must come, in this way, to experience it in himself,—an act which begins without other influence than the self offers. This view is necessary to make this discovery develop the elements of self-consciousness; that is, one thus begins to discover his own thoughts, his own feelings, and his own choice; he marks the difference between thought and feeling, and the relationship of these to choice. The very process of discovering these differences and of separating thoughts from feelings, and both these from choice, is a process of classification brought on through a beginning of self-consciousness, since it is a classification through the study of one's self. The analysis thus begun may be carried into individual detail, but the nature of the process is always that just described. These two processes: that of self activity and self consciousness, make it possible to discover higher and lower orders of human experience and thus to lay the foundation for the setting up of ideals of conduct. So soon as this has been done the person has started on a course of self-direction; that is, the setting up of ideals of conduct, and the controlling of his own energies toward the realization of these ideals, although in so doing he may be obliged to withstand the influences of environment. The proper blending of these processes of self-activity, self-consciousness and self-direction, lays the foundation of human progress. The power of self-direction raised from mere expedience to the worthiness of moral conduct, marks the dividing line between mere intelligence and the moral capacity of the human being. This blending of the three makes it possible that a person may take advantage of the experience of others, deeming it of worth or value to his own life. In this way the individual, without having to live through it, secures the experience of the race. Given an infinite universe, and a being capable of experiencing all within himself, there is implied an infinite time; thus is the individual immortal. On this foundation philosophy joins with religion in asserting the immortality of the individual, personal soul.

From this study of one's self as an original force—self-active, self-conscious, and self-directive—one soon perceives that the great power which stands behind the forces of the universe, being necessarily self-active, must itself be of the nature of mind. You have only to think self-activity infinite, self-consciousness without limitation, and self-direction without interference, to have a conception of the Omnipotent, Omniscient Creator. Such a being exhibits complete harmony of intelligence, sensibility, and will, the perfect blending of these three activities into one, the dominant one being the will. Religion and philosophy again support each other, in the belief in a personal God, who is essential mind, infinite in the three characteristic attributes of spirit. His constant presence in the universe as a thinking, feeling, creating force is the explanation of its continued existence. With Him the ideal was perfect from the beginning; but the successive stages of its realization occur in time as a process of development. The theory of evolution seems at last to have discovered at least some hints as to this method in the physical world. Students of social questions are earnestly seeking to find a similar law or method of development in the province of morals. Historians have sought to learn through the deeds of men the law of race and national progress—the student of education strives to find the law of individual development and the correlation of this with the larger movements of nations, peoples, and races. This is the largest problem of all,—the others being mere conditions of the solution.

This view of the universe I believe to be the only secure foundation for a rational system of education. It gives dignity to teacher and pupil, and sets up an end or ideal of education which commands the respect of all. The individual immortality of the soul, the presence in the universe of a personal God in sympathy with struggling men, the finite human made in the image of the infinite Divine, God's ideal the law of progress,—these being given, a philosophy of education is possible.

BIBLIOGRAPHY IN THE HIGH SCHOOL COURSE.

BY B. A. FINNEY, UNIVERSITY OF MICHIGAN LIBRARY.

In connection with the increased use of libraries and of books other than text-books as tools in the regular school work, the need of some instruction that may help the pupils in the use of these tools has during the last few years forced itself quite strongly upon the attention of teachers and librarians.

At the meeting of this club in Ann Arbor in November, 1897, when Principal J. H. Harris of Bay City presented a scheme for a full high school course with considerable latitude in options, I suggested the advisability of including at least a limited or elementary study of bibliography in the curriculum¹. By the term bibliography in that connection I referred more particularly to the acquirement of a practical acquaintance with the ordinary indexes, reference-books, etc. The history of books, of writing, etc., and the details of library science were not included in the suggestion.

The discussion turned upon the subject of high school libraries in general, and a committee, of which Mr. Harris is chairman, was appointed

¹See discussion on the paper on Elective Work, read by Principal W. H. Smith of Pontiac, at this same meeting, in November, 1897, and reported in the *School Review*, 7:239 (April, 1899). Mr. Harris' paper appeared in the *School Review* for October, 1898.

to secure information as to the present resources of the various high schools in the state in the way of books desirable for reference use in the several courses of study. The committee has been continued and has the matter still under consideration.

Instruction of a bibliographic character seems to have begun where its need was most pressingly felt—in the universities and colleges. It is generally conceded that the earliest regular instruction was the course begun in 1879 by Mr. Davis, librarian of the University of Michigan, and continued successfully as an elective study. It is a one-hour course of lectures given in the first semester. Courses in bibliography are now given in several of the universities and colleges. Bowdoin, Brown, University of Colorado, Illinois, Nebraska, McGill University and others.

Instruction of this kind has taken a sudden start in the Normal schools, and is making rapid headway. At the Chautauqua meeting of the American Library Association last July a report on instruction in the use of reference-books in Normal and preparatory schools was presented by Miss Adams, librarian of the Plainfield (N. J.) public library. Out of twenty schools nine report individual or informal instruction by the librarian or heads of departments, and five do special work, although it does not appear to be part of the curriculum. Miss Schreiber, teacher of literature in the Milwaukee Normal school, presents a course called "Literature and Library reading," designed to train teachers to carry on the work in the common schools. In this course the seniors have some actual work in the library, even taking entire charge of it for a few days. They learn to help others in the use of books.

A recent statement by Miss Louise Jones, of the State Normal school at Emporia, Kansas, is as follows:

Regular and systematic instruction in library methods is now and is to be hereafter a part of the student's equipment for the profession of teaching, to the end that he may the more wisely look after the interests of the library in the village or city where he may teach. Miss Simpson, librarian of the Normal school at Stevens Point, Wis., writes me of her intention to do some work of this kind there. I also understand that there is something done in the Normal College here. I believe some cataloguing is undertaken in connection with the training school, and that some of the daily work in the library is freely done by students for the benefit of the experience which they get.

At the meeting of the Library Department of the National Educational Association, at Washington, last year, the committee on the Relations of libraries and schools, presented a preliminary report. Among other questions recommended for the consideration of the committee, if continued, were these:

How to encourage normal schools to give more instruction in the use of books and libraries.

How to induce high schools, colleges and universities to establish "schools of the book."

This committee was continued and hopes to present at the next meeting of the National Educational Association as full and complete a report as possible. All teachers or librarians interested in the subject and willing to contribute reports of practical experience or opinions as to method are requested to communicate with the chairman, Mr. J. C. Dana, Librarian Public Library, Springfield, Mass.

As to bibliographic instruction and reference-work in the high schools a very interesting and complete report was presented at the last meeting of the American Library Association by Miss Rathbone, of the Pratt Institute Free Library, Brooklyn. Out of thirty of the large high schools of the country fifteen report systematic instruction. Some of the instruction seems to be uncertain, and that number should probably be reduced.

In the Pratt Institute high school this work has been carried on successfully for several years, particularly by the departments of English and history.

At the annual meeting of the Michigan Library Association at Bay City, last October, I gave a paper on this subject, and in order to procure more specific information before the meeting I sent circulars to about twenty school superintendents in Michigan asking the following questions:

1. Is there any systematic instruction in the use of reference-books or any other bibliographic instruction given in your high school.
2. If so, is it a regular part of the curriculum, and what is its general character.
3. How long has the instruction been given, and how much time given to it.
4. By whom given, principal, teacher, or librarian.

The replies, which came generally from the principals of the high schools, indicated that with one or two exceptions, there is no systematic instruction, but that more or less is given in an individual and occasional way by the teachers, especially of the English and history departments, and by the librarians. A report that was stimulating was received from Principal Marsh of Jackson, who stated that there was some regular instruction given in the lower grades, although not in the high school.

A most encouraging report was received from Detroit. Principal Bliss reported that in addition to the three regular talks each semester on the use of the library, undertaken by the librarian, a systematic use of the reference-books is made in connection with the instruction in history, rhetoric and literature. They have in the Central High School fifty copies of Webster's International Dictionary, three copies of the Century Dictionary and Encyclopædia, six sets of Johnson's Cyclopædia, and an abundant supply of other books for reference work. Many of these I believe come from the Public Library as a sort of permanent loan.

Miss Hopkins, librarian of the Central High School, proposes to give three talks to the school by grades and classes, somewhat as follows:

1. An explanation of the system on which the library is classified, that they might grasp the idea of classification in general and the necessity of system, and that the numbers which they so frequently copy might come to have an intelligent meaning.
2. On indexes, general and special. (She claims that pupils are very slow to learn the use of an index).
3. On dictionaries, cyclopædias and other reference-books.

At the Ann Arbor High School, Miss Loving, the librarian, had for several years desired to do something of this kind, but had not found opportunity. I expected to give a course there last year, but it was unavoidably postponed, and this spring Superintendent Slauson has made arrangement whereby I am giving a short course of four or five lectures or informal talks to a portion of the history classes. The arrangement with the history teachers is that the pupils may elect to report on my lectures instead of some assigned reading. About seventy-five or eighty pupils have come into the class, mainly from the two classes in general history, which is second year work, although there are

some seniors from the class in English history. The course so far has developed some interest, and might be considered moderately satisfactory. Although at present much condensed, the course would be divided into about ten parts, as follows:

1. Books and writing materials in ancient times. History of the book, its form, manufacture, use and preservation, up to the time of the invention of printing.
2. The printed book. What was it? How made? Binding, etc. Care of the book. Development of the book of today. Some of the tendencies in bookmaking.
3. Libraries and the housing of books. Some great collections. Classification and arrangement of books. Responsibilities of libraries and readers.
4. The catalogue. Printed in book form, manuscript sheets, cards, etc. Different kinds of catalogues. Basis of arrangement, meaning of terms, abbreviations, etc.
5. What is a reference-book? Dictionaries and encyclopedias. Special features. Why and when one or another is to be preferred.
6. Dictionaries of special subjects, as: Biography, Mythology, Quotations, Authors, Anonyms and Pseudonyms, etc.
7. Indexes to periodical and other literature, general and special, concordances, bibliographies, etc. Theory of indexing. General principles.
8. Geographies, gazetteers, atlases and guide-books.
9. The Bible: Versions, introductions, concordances, commentaries, histories.
10. Almanacs and other annuals; census and statistical records; state and government documents; legislative and parliamentary manuals. Some final remarks on habits and method of reading.

This course is thus arranged as a series of from five to ten lectures of one hour per week, but it might be lengthened to advantage by the addition of practical work in the use of the reference-books, and reports upon them, so as to make a one-hour course for a semester.

The first-half-year of the high school course as proposed by Mr. Harris consists of only fourteen hours, while the other half-years require from seventeen to eighteen hours each. If such a course as this were incorporated into the first year's work, it would naturally be made a little more elementary, but not necessarily less useful. An advanced course, for another year, might also be given, should it seem to be demanded. Experience seems to show that wherever instruction of this kind has been tried, while relieving the teacher and librarian from many personal calls for assistance, it has at the same time facilitated the student's work in his other studies. This result would probably and directly make amends for any study or portion of a course that might be eliminated to let in the bibliography.

We must not fail to recognize on all sides that science is progressive. The librarianship of today is a science developed during the last twenty years. The title of schoolmaster only expresses the condition of an age that is gone. The teacher is more than an instructor; the librarian is more than a custodian. Both are educators, and are working together for the good of the public. But the methods in the use of books which have become necessary today are throwing on the shoulders of both teacher and librarian burdens too heavy to bear, and which also impede the progress of the student. Much of this would be remedied by such instruction as I have suggested. It might be given by

librarian or teacher, as the case might be, and would vary, of course, with the different conditions of teacher and pupils, and with the book resources of the school.

I would therefore advocate the introduction of bibliography, or the science of books, into the high school course for the following reasons: 1. It would relieve the teacher from a good deal of personal assistance, which is a growing demand, and the need of which is a hindrance to the progress of the work. 2. It would relieve the librarian from a great many unnecessary questions and individual calls for help, and increase the use of the library. 3. It would give the student desirable knowledge, facilitate his work in other studies and better equip him for continued study after leaving the high school and for the activities of life.

BIBLIOGRAPHY IN THE HIGH SCHOOL COURSE.

BY H. M. UTLEY, LIBRARIAN OF THE DETROIT PUBLIC LIBRARY.

The point which I wish to impress most strongly relates not so much to the methods or details of bibliographic instruction as to the importance of it. A little observation in a public library will convince any one that the masses of the people are sadly in need of instruction of this kind. There is not merely ignorance of the sources of information. It is to be expected, probably, that persons who have not close familiarity with books in all branches of literature should know definitely what publications there are which will give them exactly what they seek. These publications are so great in extent and so greatly multiplied in modern times that even educated persons long out of school or college could not reasonably be expected to have knowledge of them. The thing to be lamented is that when books which answer the questions he asks are put into the hands of the average citizen he has not the remotest idea how to go to work to find the answer. This is not surprising. He could not be expected to know by intuition, and he has never been taught.

A reference book is a tool and one must learn how a tool is to be used. We are multiplying schools which teach handicraft, and advocate manual training in schools of even low grades. Familiarity with common tools of the trades is thought to be a desirable feature of one's educational equipment. Is it not equally desirable to give the youth before he goes out into the world some acquaintance with that other tool which will enable him to turn up an important fact in science, literature or art, for which he may have use? I think so.

I have seen men of fair intelligence stumble over the finding of a word in a dictionary. The Detroit library catalogue, made upon the simplest possible plan—that of the dictionary—is worse than a Chinese puzzle to some people. A few days ago a man said to me: "What kind of a library have you anyway? I have spent an hour over your catalogue trying to find something on steam boilers. The most modern thing I have been able to find is this old affair"—and he held up a book whose title page bore the date, 1839. I took the catalogue and showed him under the heading, "Steam engines and boilers," not less than four printed quarto pages of titles of books, most of them modern and some as recent as 1897. He had simply been wasting his time groping in ignorance of the way to go about finding that for which he

was looking. I have no doubt but that many persons come to the library for information who are too timid to ask for help, or ashamed to expose ignorance, and go away with their wants unsupplied, probably condemning the whole institution as a delusion and a snare. A prominent citizen has publicly stated that persons have come to him and complained that the library catalogue is worse than useless, because people can never find anything in it. He was in some doubt whether it ought not to be made over and made so simple that anybody could find everything. On the same theory, the alphabet is so complicated an affair that it should be reconstructed to meet the mental capacity of the illiterate. No alphabet could serve the person who does not know one letter from another. No dictionary can be useful to the person who does not know the order of the letters of the alphabet. No one can get anything out of a book without some little knowledge of the method of its arrangement, its plan and scheme. If he picks this up for the first time and without any investigation, without aid or explanation, seeks to gain from it an answer to some question, he is quite likely to be disappointed. The fault is not in the book. The answer he seeks is there and plain to be seen if he looks for it intelligently. The trouble is in lack of knowledge of the inquirer.

To many people an index is a profound puzzle. The making of an index upon scientific principles is an art which requires much study and mental alertness. The purpose of the index is to tell you where you will find that for which you are looking. For what are you looking? Has the maker of the index anticipated the form in which the question arranges itself in your mind? Perhaps not. You must think of other possible forms of arranging this question, of making one word or another most prominent and so putting it first, of using one or more synonyms for the first or most prominent word. That is your task in searching an index. The task of its maker is to anticipate these various phases of the question and so multiply his entries that your question will be answered at once, no matter under what word you may look for it.

This is merely an intimation of one of the many problems which a study of bibliography involves. Dictionaries and encyclopedias usually index themselves, but he who turns the leaves of either must first inform himself of its plan of arrangement and ascertain whether the scientific or the common form of the name of a subject is used, whether or not he shall look for birds under ornithology. Some general information is essential, and a little ingenuity is useful at times. A gentleman who had invested a considerable sum of money in an encyclopedia which is considered first-class, was greatly disturbed at the discovery of what he thought a glaring defect. He had occasion to look up the subject of india rubber and found that it was not even mentioned. When I showed him that the substance was fully discussed under caoutchouc he was much chagrined to think he had overlooked it.

In this connection there is another matter which directly concerns the modern schoolmaster. A lad of 15 years visited a certain library not long since in search of information about a given city for a school essay. An encyclopedia containing the information was put into his hands and he spent some time turning the leaves, apparently quite nonplussed. A little inquiry brought out the fact that he could spell the name of the city but did not know the order of the letters of the alphabet. He had learned to read without memorizing the letters. When I went to school the first thing to be learned was the alphabet, and the letters were repeated by rote until they were firmly fixed in the mind. The thing which everybody could do was said to be "as easy as A B C." The modern method is to teach children to read words, and the letters are of no account, except in combination to form words. Should

there not be also an effort to fix in the mind of the child the order of the letters? There are so many ways in which this order comes into practical use that it appears to me of high importance. This ready familiarity with the letters is essentially the first step in a knowledge of bibliography.

So many reference books are now available in our public libraries and elsewhere that some knowledge of the manner of their use is absolutely necessary to all who would keep themselves well informed. So far as the passing generation is concerned this knowledge can be acquired, at best, only in haphazard fashion. But the rising generation ought to get this practical knowledge as part of their school curriculum. The matter is a very simple one and does not involve any overhauling of the course of study. It is not necessary to drop anything now considered essential, nor to add any text-books or hours of study. It may be made purely incidental, with a little oral instruction from the principal, some competent teacher, or the school librarian, a few quizzes, with an opportunity for practical application of the principles taught. Every school library will, or should, furnish the books to illustrate the topic. Bright scholars will very quickly seize upon the ideas, and I feel sure that the subject will prove to be both novel and interesting. When it is seen of how much available usefulness the instruction is to be and how easily it is fixed in the mind by actual application, it is certain to commend itself to every pupil.

I should not consider it necessary to arrange any very elaborate scheme of bibliographic instruction. True, a course might be laid out which would prove to many a very interesting study. But if carried so far as to supplant some other topic this would involve a re-arrangement of the course. Whether this would be wise I will not undertake to say. There is an impression in some quarters that the course is already overcrowded and that too many things are now taught, that it is better to concentrate than to scatter still more. This is a question upon which I am not competent to give an opinion.

My plea for bibliographic instruction merely contemplates that it shall be of an elemental character. There are a few simple principles to be learned, and some practical ideas to be impressed upon the mind by the actual doing of certain things which all will quickly see are very useful. I should think that an hour a week through a term of five weeks would give pupils a very fair insight into the subject, probably sufficient for all practical purposes.

DISCUSSION.

MISS FLORENCE M. HOPKINS, Librarian Detroit Central High School:—An effort, in a small way, at giving talks on bibliography to High School students has been made this year in the Detroit Central High School. Students have been called together, during study periods, for two separate talks. That all students may be reached without interrupting class work, it has been necessary to repeat each talk five or six times; sections varying in number from thirty to one hundred or over.

The first talk was upon indexes, beginning with an ordinary index, and leading through indexes to sets of books, encyclopedia indexes, indexes to atlases, Poole's Index, the Cumulative Index, etc.

The second talk was upon the nature of a few general reference books, such as classical dictionaries, biographical dictionaries, gazetteers, the Century Dictionary of Names, concordances, etc., and an explanation of a card catalogue.

This is the first term that any systematic work in this line has been attempted. The attempt has proved that such work is needed, that it more than pays for the effort, and that it will reward closer attention and systematizing. All talks have been given by the librarian.

SHOULD THE COLLEGE COURSE BE SHORTENED TO THREE YEARS?

Papers were read upon this subject by Professors George Hempl and F. W. Kelsey of the University of Michigan, and by ex-Regent Barbour.

Professor Hempl showed that the concessions that have been made by many of the larger institutions of learning to those students that desire to take up professional or graduate work amount to a reduction of the undergraduate course from four to three years so far as these students are concerned, and that the gradual extension of this privilege to all students may be looked for at no distant date.

The paper by Professor Kelsey, the reading of which required more than an hour, was divided into three parts. First, a brief account was given of the history of the question proposed for discussion and of the results of the practical working of the three-year course, particularly at the Johns Hopkins University. Then the arguments of President Eliot, of Harvard University, of Professor John Henry Wright and others, in favor of the three year course, were subjected to criticism in the light of educational statistics bearing upon the increase in the enrollment of collegiate students and in the number of students in schools of theology, law and medicine who had completed a collegiate course before entering upon their professional studies. The third part of the paper aimed, through an analysis of educational conditions, to reach the causes that have led to the agitation in favor of a three-year course. The limitations of space make it possible to present here only the main results of the paper, which were summarized under seven heads:

1. The educational results of the three-year course, where it has been tried, are not such as to furnish a presumption in favor of its general adoption.
2. Arguments in favor of the three-year course based upon the decline of collegiate attendance, the decline in the relative number of collegiate degree students in the professional schools, and upon the alleged transformation of the colleges into resorts for the "wealthy and leisure class," are contradicted by the facts.
3. The argument in favor of the reduction in the length of the collegiate course in order to lower the age at which professional men may complete their preparation and enter upon active life, has been pressed too far, yet contains an element of truth worthy of consideration, particularly with a view to shortening the period of elementary education.
4. The agitation in favor of a three-year course has grown out of the imperfect adjustment of isolated colleges to partially or completely isolated professional schools.
5. In the case of the University of Michigan, and of other universities with a similar concentration of work on one campus, the relation between the work of the literary and that of the professional departments is by no means difficult of adjustment.
6. The proper solution of the problem of adjustment for such institutions lies in the maintenance of the literary course in its integrity, with the blending of the work of the last year in some cases with the work of the professional departments, thus reserving, to the student, the largest freedom of choice.

7. The solution proposed is not in the nature of a temporizing expedient, but lies in the line of our educational development. In the struggle between competing university types, economy of administration will ultimately insure the dominance of the universities the work of which is concentrated and hence without needless duplication of facilities.

SHOULD THE COLLEGE COURSE BE SHORTENED TO THREE YEARS?

BY EX-REGENT LEVI L. BARBOUR.

I do not propose to discuss the topic from a technical or professional standpoint, but simply as a layman, I remember, however, the substance of what a great professional educator, Professor Fiske, says, viz., that the great progress of mankind has resulted from the increase in the length of the period of adolescence, and I shall adopt that as my text. And the converse proposition is as true: anything which tends to shorten or limit that period, other things being equal, is a retrogressive step. Then, I fancy the average period of study may be taken as the measure of a nation's civilization; and civilization is the measure of the value of life. Yet let us not forget that it is not the things learned that form the greatest value of school or college life, but it is the culture that is implanted, the tastes that are infused, the character of the individual that is formed, and the quality of life that is aspired to. And all this takes time, as it does for a tree to grow. If the growth be too rapid the wood is unsound, the fruit withers before it is ripe, and the tree dies before its time, consumed by dry rot or uprooted by the blasts of winter. Throughout all nature time is necessary for development, and generally the more time the better the development.

The foundation of intellectual life must be of the most sturdy; and the foundation of all true life, after the question of health is settled, and perhaps even before, is education, in its broad sense. Mere animal life, to be sure, has its rights, its purpose, and its duty, yet these all are of infinitesimal account in comparison with the powers and duties of intellectual life.

Our public schools, in their present condition, do not provide, nor prepare for, any such rapid advance in culture and training as warrants the cutting down of the college course. Nor does the popular estimate of what such schools should be. Really, much time in the college course that should be otherwise utilized is required to make up the deficiencies which exist in grammar and secondary school training. I think this is especially true in regard to language study;—English, as well as other languages, both ancient and modern. From investigation of numerous authorities, and from observation, I feel positive in saying that the children of English, French and German schools are far ahead of those in our own schools in all language studies. They are better grounded in them and can make a much more extended and correct use of all languages which they undertake.

We throw away two of the best years for learning—from the age of three to the age of six. Worse than that, when the child is turned loose to play upon the street, this supple twig is bent in directions antagonistic to upright growth and no training can entirely correct the inclinations and habits formed.

If the kindergarten and manual training were universal, if the child's entire play were utilized, and the process of education made the business of the life at home, there might be found in these compensation for the loss of one or even two years of the present college curriculum. But far better, even then, than to elide a year would it be to add two years, and thus raise the quality and stature of the college man.

If the college man intends to be a professional man he cannot for his own personal benefit, nor for the reputation of his chosen profession, know too much of things in general; he cannot have too much culture, nor be too well trained and disciplined in the gentle arts of careful observation and the deduction of correct conclusions. There is no profession or business in life in which success does not depend upon the thorough cultivation of these two powers or faculties of the mind. For, though some men, as Cicero says, may, by their natural ability, excel all that others, with learning, may be able to do; yet what would those men not be able to accomplish had they the ability and training also?

While I compromised with my conscience and judgment, somewhat, in submitting to vote for a combined course of six years with an academic and a professional degree to be conferred when the work was completed, I fear I could not bring myself to think, by any course of reasoning, that it would be well to encourage the shortening process for a collegiate course alone.

If a person cannot devote four years to that process of preparation for life which is designated by a degree, and can only devote two or three years to college life let him be given a certificate stating the studies pursued and the proficiency attained. But do not debase the coin! Let a degree stand for something stable!

Degeneration of ideals and the forsaking of principles seem to be in the air of recent years. If college men do not stand by their ideals and principles, where and to whom may we look for "the saving remnant"?

In the good old days when I was a student, one of the essentials of college training was the building up of ideals and taking a firm stand upon principles. I think that was the main reason, or one of them, of Doctor Tappan's secure hold and lasting influence upon the young men who sat to his teaching. I fear that the professor of his day who proposed to weaken or shorten the curriculum leading up to a degree would have been rebuked.

An indication of this degeneracy of ideals is the hurry that has taken possession of the modern American. With the hurry comes the slighting of the work, and with this slighting comes naturally the conclusion that educative work is unnecessary:—and it is, and worthless, when slighted. This slighting, too, breeds dishonesty, and the abandonment of all principle. This demoralization, I think, is the reason why so many half educated men fail in life; they think that slighted work will go as well as perfect work; their course of education has taught them to believe so; and because such work does not go they think their occupation gone, and turn to something new. Unless the new happens to be a lucky strike, leading to wealth, they are discouraged and die the living death.

There was a time when a rigid curriculum prescribed studies and a training within very narrow limits; and enough of that sort of thing, whether classical or scientific, might perhaps be had for all the practical purposes of common life in a shorter period of time than some people felt inclined to devote to it. But now two things have happened which should certainly prevent the lowering of the standard, or the requirement of less time for study; first, the wide range

given for elective studies has so broadened the field that one may select, and satisfy any taste or inclination; and, second, such heights and depths have been attained in every science and art that a longer, rather than a shorter, period of time should be required for their pursuit.

It seems to me absurd to say that the more there is to learn the less time we should devote to the learning of it, and that the more we realize the importance of character-formation the less time we should dedicate to it.

We believe, I hope, in future progress. It can only be made by learning more, and becoming better men. These two are the true objects of collegiate education. It is too low an appraisal of education to esteem it merely as a means of getting on in the world socially, financially or politically, though, of course, it is not harmful to recognize that it is a great aid to any one of these purposes. But, leaving them out of sight, education ought to be considered and prized in and for itself. Its chief merit and use is that it makes the sort of man it does; and if that be so, shall we haggle about a drop of eternity, more or less, devoted to the purpose?

I have heard the baker and the candlestickmaker talk of wasting time in getting an education, of getting one's attention so distracted from business by college studies that one was good for nothing; but I should really dislike to hear a college professor, for the sake of argument or even in jest, pretend that twenty-five per cent of the time and effort actually devoted to college training might, with profit, be eliminated.

Why! those are the happiest days of life, because the most free and the most enlarging. We all know that the growing time of life is the richest and the most enjoyable. It is the perception of progress and not the attainment of any personal and selfish end that satisfies. This is more keenly and truly felt of intellectual progress, and the attainment of no mere material purpose, like financial or political success, can be weighed with it for a moment.

As college training and education establish the ideal of life, they also establish those habits which make the realization of the ideal possible. I think the most important of these habits are those of enquiry and industry. The true student is not indifferent, nor is he wasteful of time. There is always something he wants to know and something he wants to do. These two wants are with him an eternal hunger. And how best shall he be able to satisfy such hunger, except with that provender which the habits themselves provide? The true tree of knowledge bears no bitter fruit, though it bears an infinite variety. And it is this variety, ever increasing to the gaze, that is the attraction of eternity, and produces the longing for immortality. The Heaven of "dancing before the ark" and of "singing psalms before a great white throne" fades away into insignificance, and becomes unattractive, when compared with the realm where infinite love and wisdom are ever revealing new beauties and ever making manifest new truths and new virtues.

When we dream these dreams shall we be willing to lessen by a single day the seed-time which enables us to plant for such a harvest?

THE PERIOD OF ADOLESCENCE.

BY PROFESSOR C. O. HOYT, OF THE MICHIGAN STATE NORMAL COLLEGE.

As usually understood, the period of adolescence extends from the age of fourteen to the age of twenty-five years, but, owing to individual differences in organism due to differences of sex and environment, it is impossible to establish any fixed age. Distinction is generally made between puberty and adolescence, the former being regarded as "the initial development of the reproductive function," while the latter includes the period of about twelve years from "the first evolution up to the full perfection of the reproductive energy." This view is quite generally adopted by investigators, and all lines of research have accordingly been carried on with this in mind. It is thought that the advent of adolescence which comes at the period of puberty is more important than the later stages of adolescence, for "it must be remembered that the character of the earlier period will in a great measure determine that of the later."

The principal method of study has been by means of syllabi. The data obtained in this way are in the main reliable, because the adolescent is at an age and in a mental condition when the written reports regarding himself reflect his true nature much more faithfully than they would if made at a later time in life when he must depend upon memory. The emotional side of life can be studied in no better way. The study of biography has also afforded a fairly fruitful source, serving for the collection of characteristic facts regarding this period of life. A collection of the early sayings and actions of noted personages, shows all of the common traits of the average young person. From these sources much has been collected and a basis has been provided for some conclusions. It may not be out of place, at this time, to make a brief reference to what has already been done for the double purpose of enabling the reader to investigate further for himself, and to show the limited attention that has been devoted to the subject in this country.

1. President G. Stanley Hall in an article in the *Pedagogical Seminary*, Vol. 1, on "The Moral and Religious Training of Children and Adolescents," has suggested many profitable lines of study.

2. Dr. Wm. H. Burnham, in the same magazine, in an admirable manner has followed out some of these suggestions, which are recorded in his "The Study of Adolescence."

3. "The Psychology and Pedagogy of Adolescence," by Mr. E. G. Lancaster in a recent number of the *Pedagogical Seminary*, Vol. 5, has given by far the most exhaustive and complete treatment that has come to us. He give the results of his study of hundreds of returns, and his article will prove exceedingly suggestive and helpful to the secondary teacher.

4. In addition to the above may be mentioned "The New Life, a Study of Regeneration," in the *American Journal of Psychology*, Vol. 6, by Arthur H. Davids, and "A Study of Conversions" by Mr. Starbuck, in the same magazine, Vol. 8, as being valuable. Other articles of less importance have from time to time appeared, but careful reading of all taken together impresses even the casual observer with the prime necessity for a more careful study, a more extended investigation and a more intelligent observance of all of the life principles that pertain to this period. At the same time one is impressed by the false conception which the average person has of

this period of life. It is usual to regard boys and girls at this age as strikingly peculiar or disagreeable perhaps, hard to manage in home and in school, physically awkward and ungainly. The parent breathes a sigh of relief when the child emerges out of this condition, and the teacher seldom sheds tears when this disagreeable boy is advanced to the next grade or leaves the school for all time.

This very imperfectly states an important problem, important not only to the life of the boy or girl, but in a way affecting our social life. The social second birth of the child is now and has been in all ages recognized as of the greatest moment. Among all peoples it has been so regarded, being observed by celebrations, by feasts or by peculiar mystic rites and ceremonies, in which the individual is the most active participant, and is subjected to a trial calculated to test his fitness for life. This thought has come to us through all races and all times and in our later civilization, "the passing of the golden gates of childhood" is made the occasion for feasts or ceremonies, and in the Christian church for confirmation.

Research has shown that in the early years of childhood an exceedingly large number of changes of a physiological character take place. They are not, however, strikingly important. While one might be impressed with the more obvious changes marking the advent of pubescence, and from this point of view regard them as more important than the earlier changes, because more noticeable, yet it is believed that functionally they do not, with possibly one exception, tend to exert influences of extreme vital importance. The various outward physical changes are obvious to all. A consultation of Bowditch's tables shows that in boys the greatest height increase occurs at the ages of 13, 14, and 16, when the average is 2.75 in.; in girls the greatest increase is 3.37 in., which occurs at the age of 12. There are two periods of greatest gain in weight in boys: at the age of 14 and 15 the average gain is 11 pounds per year; while at the age of 16 it is 12.83 pounds. In girls the greatest gain is 11.09 pounds, which takes place at 12. Donaldson has shown a peculiar variation in brain weights, occurring at this period. The brain weight in boys at 13 is 1500 g.; at 14, 1300 g.; and at 15, 1500 g.; in girls at 13, 1250 g.; at 14, 1350 g.; and at 15, 1250 g. It is thus seen that in boys the greatest brain growth occurs at the time of greatest gain in height and weight, while in girls the greatest brain growth takes place two years after the period of greatest gains otherwise. The greatest brain change, however, it is thought, is in the large increase and medullation of association fibers. There is also to be noticed the relative changes between the size of the heart and arterial system. In childhood the former is relatively small; with the advent of pubescence this is changed. The functional changes in the reproductive organs, occurring earlier in girls than in boys, and being different in character, produce striking outward physical changes and actions. Lancaster has shown that the change in the angle of the vertical axis of the pelvis, together with the rapid growth of the hip bones, makes the girl taller than the boy. This affects the standing and walking positions. New movements must be acquired, being attended oftentimes by great difficulty and serious inconvenience. At the time of greatest growth in boys, the growth of bone and muscle is not co-ordinate, the resulting maladaptation producing extreme lassitude and inertness on the one hand, or clumsiness and awkwardness on the other. This makes possible abnormal fatigue with little exertion. At no time is there such a variation of the fatigue curve as seen at the time these changes are taking place.

The changes in psychic power and function as manifested by unusual and sometimes abnormal activities are of such a character that they demand careful consideration, especially if the teacher hopes to profit by her study of the adolescent, and desires to benefit him by her knowledge of his nature. Psychologically he is often an enigma because of the conflicting and contending storm and stress of ideas as he is swayed to and fro, in his actions, by the overwhelming domination of the ever-changing emotions. In a general way it is obvious that this period when viewed in contrast with others, may in the main be characterized by saying that there is accelerated physical growth always accompanied by an increase of intellectual activities and intensified emotional interests. This has produced great results, as reference to the world's history will show. The world's work has been largely done by the adolescent.

In this great intellectual awakening, characterized by the most intense altruistic feeling accompanied by increased love for nature, music, art and literature, these strong ideals have gone out in action that on the one hand, under the proper direction and sympathetic guidance of the intelligent teacher, has produced the master in science or art, or on the other hand, without this proper direction, the world's great criminals and insane. It is easy for the scientific writer, in the quiet of his study, coldly studying hundreds of statements and confessions made by the unknowing yet knowing adolescent finally to say to us, that the young man is experiencing a strong emotional period of life, that in the storm and stress of doubt he is fluctuating in his enthusiasms and in his interests, that he may be easily converted to Christianity, and yet that in the general instability of unformed character frequent and dangerous moral aberrations are experienced. But for the parent or teacher, having in view his own particular aim of education and life, and too often regarding the young person from his own adult point of view, to realize this is extremely difficult. When this realization is brought about it is not unreasonable to hope that there will be a greater contribution to future civilization than there has been in the past.

Interesting and valuable as it is to the psychologist to study from a scientific standpoint the various phases of mental phenomena as seen in adolescent life, the "focal point of all psychology," such study is of more value to the teacher, since it is he who must practically apply, and approve or condemn the principles or laws discovered. I shall therefore turn to the pedagogy of the subject and endeavor to base practice upon some pretty thoroughly established theory.

I. *Motor Training.* It is believed to be true that with the young child the necessary complement of the idea-forming process is the motor element; that impression on the one side demands expression on the other to complete the mental process. Motor training is then an important educational factor not for the sake of activity itself, but because it is educative. With the adolescent, however, there is activity of quite another kind, activity that is not the reflex of a single stimulus to a sense organ, but activity due to an increased blood supply and to stronger ideas gained through keener sense organs, modified by previous experiences, and developed into changing ideals. There is need for a means by which this activity may be turned into educational channels. Back of it lies a deep enthusiasm and interest. It has been suggested that Herbart's doctrine of interest might be put into practice with the adolescent as well as with much younger children. This may not be true, but we do know that the adolescent must experience excitement and must do some-

thing—a necessity growing out of the rational demand that the physical and mental life be kept pure, healthy and growing—otherwise immoral gratification of desire is likely to result. Therefore all interests of whatever character they may be, should be ascertained and then the motor complement, whether it be athletic, scientific, artistic or literary, should be supplied as a part of education. It may be by way of a celebration of a football victory, or it may be of a more intensely utilitarian character in the manual training shop. As a part of the educative process it matters not which. The boy's nature demands activity, and we must supply the demand.

II. *Environment.* A number of peculiar conditions surround every adolescent, which, in their vital relations to the child are imperfectly understood, and it is to be feared, are indifferently regarded by both parent and teacher; in fact, by all with whom the young adolescent comes in contact. If this is not so there is a neglect somewhere that is almost criminal. These conditions may be summed up as all the influences with which the young adolescent is brought in daily contact, outside of the school. Upon these depend his physical and spiritual being, as to kind and modification. The amount and kind of food with which the body, when the demands are greatest, is nourished, should be quite as carefully attended to at this time as at any other period in life. Sleep is another important consideration. Too often, it seems, natural growth is retarded by an insufficient amount, and in its effects manifests itself not in the physical nature alone but in moral action. The proper attention to dress and care of the person stand as elements in the environmental conditions, equal, if not superior, in importance to all others. This is referred to because of its bearing upon the delicate and shunned question of sex-hygiene, to which only the barest reference may be permissible. One has only to read the statements of girls in numerous confessions made to different investigators to realize that some one needs education. One has only to glance at any newspaper and there read the advertisements appealing to young men. If you could penetrate the sanctum of this "medical company" and could gain access to the letter files, and could read a few of the thousand letters written by deluded boys, and then if you could know in your own school what your boys are doing, I think all would agree with me that someone needs educating, and that kind of an education, too, that means a legislation sufficient to put a stop to the nefarious practices by which pure youth and bright young manhood are ruined. I wish to offend no one by this allusion, but it seems to me of such vital importance and of such vital interest to all young people as to demand your attention. Let the teacher through co-operation with parents unite the two great forces of education, the school and the home, that the influences of environment of whatever character shall be pure and natural and produce the strongest lives.

The practice recently introduced in many localities of providing for physical examinations and medical inspection at stated times during the year is one that should be extended. By this means, it is believed, many evils would be remedied, right ends conserved, and causes of hitherto strange and misunderstood actions might be pointed out and remedies provided. We are too often called upon to meet the charge of "overpressure in the schools." They tell us that our requirements are so rigid and the work so severe that the physical and mental strain undermines health, and in consequence pupils are compelled to relinquish school work. While conservative school men are willing to admit as true some of these grave charges, as shown by their willingness to change their courses of study, by adapting them to the growing

needs of the student, as he is better understood and these needs better appreciated, grading him according to his ability to do mental work without fatigue; yet it is probable that if there were a better understanding of the true condition that would be afforded by the physical examination referred to, not a few of the results now charged to overpressure and hard study, could then be traced to heredity, or poor environment, perhaps to insufficient or inadequate food, improper dress, irregular habits, immoral practices, etc.,—conditions for which the home or other extraneous influences are as responsible as the school. Better co-operation of home and school would do much to apply a remedy, if causes were agreed up.

III. *School Management.* In a way, the most practical application, pedagogically, of this question, is to be found in its relations to all phases of the school economy, and may be included under the general term, management. It might be noticed, however, in passing, that much more research is necessary along hitherto uninvestigated lines before anyone will be able to speak with authority. More light is needed upon the question of the mechanical requirements involved in buildings, courses of study, methods of administration, etc. It is to be hoped that contributions may be added to those already secured.

There is one point that seems of importance, to which it may be profitable to direct our attention. It is generally conceded by all, the concession being more or less vaguely based upon uncertain statistics, that relatively but a small percentage of pupils continue in school much beyond the advent of the pubescent age. The falling off seems to be greater in the case of boys than with girls. I am not aware that any one has investigated this question extensively enough to give us accurate figures as to the number of these pupils, their age, or the grade in which this falling off takes place. The answer that usually meets the inquiry: "Why did so-and-so leave school?" is "He or she," as the case may be, "has left to go to work." While it may be true that the boy or girl is at work, for few parents will permit idleness if they can avoid it, a doubt arises. Did he leave school actually to go to work? Was he obliged to go to work? Was he obliged to do this in order to contribute to the maintenance of the family? Is it not true that back of it all there is another reason, to be found in the boy himself, in the home or in the school, that will account for it all, and were it known, might have been adjusted? Teachers may well be led to question, How far am I responsible if this boy leaves my school at the seventh or eighth or ninth or any other grade? Did I, because I did not understand him, drive him away? Let us look at the adolescent himself for a moment. With the advent of this new birth, there is a self-revelation of the existence of new powers, impulses to actions not easy or possible of control, and tendencies to strange thoughts and peculiar actions not in harmony with past experiences. This gives rise to dominating activities which manifest themselves in a desire to be a leader, to form new associations and to break old ties. Any attempt to hold the subject under the old regime of his life is met with a rebellious attitude. At this stage of his life should the conflict of authority be co-ordinate with any manifestation of the migratory impulse, all these ripe and new impulses are liable to pass over into some kind of action with no definiteness of purpose. This action may or may not be determined by the ideal that in some mysterious way has come as a physical attendant to the physiological changes, and in no way conditioned or controlled by ideals given to him at an earlier period of life. I believe many boys and girls leave school in this way and

under these conditions, and I believe, furthermore, that the remedy is to be found either in the school or in the home, or in both.

From the standpoint of the educator we should be willing to concede that one remedy lies in better teaching in the secondary school. Nothing more need be demanded in an academic way; what is asked for is a better understanding of the pupils, and this will require a different method of treatment from that which he has needed in the past or will need by and by. Quite too often the application of the principles of interest found so important and necessary in the teaching of children in the lower grades is felt by the secondary teacher to be unnecessary, and is even looked upon as childish when the teacher has to deal with young men and women. When, however, a teacher is found who does recognize this principle and uses it in kind but not degree, a marked increase of success and influence is seen. The young adolescent has a living interest in nature, music, literature and art. In the utilization of these materials in determining the selection of subject matter of his instruction, we only recognize for the time being his necessities. This is imperative. Else we shall find ourselves forcing him contrary to the line of least resistance in his nature. The teacher at her best needs to be a leader in shaping the kind of ideal and in her leadership through the employment of perhaps the greatest pedagogical principle, suggestion, should cause the pupil to feel that he himself is the leader. This will take him into the great range of activity, the mainspring of which is enthusiasm.

We often think the boys or girls of fifteen or sixteen are men or women. But it should not be forgotten that in their many changing moods they do not know or understand themselves. They misinterpret our actions; they charge us with injustice; at times they seem to be against every one and feel that every one is against them. Then, at the opportune moment, mother or teacher, with suggestion and sympathy, given in the right way and in the right spirit, wins the victory. Many a student has been kept in school thus, and I believe many a one has "left school to go to work" on account of the lack of this kind of treatment.

These suggestions are not given in a spirit of criticism. They are an outgrowth of a series of studies and are given in the hope that they may call attention to this very important life epoch, with its peculiar characteristics.

IV. *Religion.* It has been shown that in the adolescent period occur by far the greatest number of conversions to christianity. The school must not teach creed; it is expected to provide ethical instruction, and the aim of all good teaching will have these ends in mind. The church admits, as science proves, that this new birth is a reality, and recognizes the demand for a cultivation of religious emotion without the influence of denominational creed. Let the love of nature and art and the good as we find it, suggest the method by which these emotions may be developed. "After the nature stage present the ideal. Hold up noble, religious lives and let the suggestion leaven the whole nature." The life of the child seems to demand that the character of the teaching shall possess this ethical and broad religious element. With this thought in mind as a part of the end, with a stern conviction of right and character presented in the ideal heroic God-man, the adolescent will through his instruction adjust himself to his environment and come into his rich intellectual and spiritual inheritance.

Dr. Hall has said, "I think we may say, anthropologically, that puberty is the period when education as a conscious, special or public function began, and has slowly developed as civilization has advanced, downward to

the kindergarten and . . . upward toward an ever increasing maturity of post-graduate work."

This vital life period has been but very imperfectly understood. It involves many interesting problems, the careful and candid investigation of which, for the sake of the young, demands the earnest consideration of all of us. To this end I present these suggestions to you, trusting that they may be provocative of thought along settled lines and of investigation into yet unexplored fields.

DISCUSSION.

SUPERINTENDENT S. B. LAIRD, Lansing:—Being one of the humblest workers in the state I feel somewhat embarrassed in this scholarly company in attempting to discuss a theme, tabooed by some and presented in such a way by others as to offend sensible people. This condition demands not that we should leave it alone, but that it should be dealt with according to its importance in a wise and tactful fashion.

Dr. Christopher tells us that there are three crises in child life:—first, the dentition period from six or seven months to perhaps three and a half years; second, the period of "easy fatigue," from seven to nine years; third, the adolescent period, from fourteen to twenty-five years with boys and from twelve to twenty-one years with girls. For the first the school has no responsibility. The second concerns the upper primary grades, and its conditions and needs should be thoroughly understood by those who minister to childhood during those years. The third begins about the sixth or seventh grade and with the majority of pupils continues throughout the remainder of school life. Within the limits of this last period and extending from the twelfth to the sixteenth year usually, is the most critical period of child life known as puberty. It is during these years of "storm and stress" that the transition from childhood to manhood and womanhood occurs; and the surroundings, care, direction and atmosphere of these years determine largely the strength, ambition and success, or failure, of the individual in his life efforts.

The changes which mark the adolescent state are both physical and psychological and should be understood by parents and teachers. The rapid growth, the taking on of ancestral traits and features, the demand for more liberty, the changes in the nervous system, the growth of the heart and of the reproductive organs, all demand a wider range of knowledge of these conditions and of how they can be best treated. It is the age of feeling, of new sensations and of social and ethical impulses.

This period is fraught with many dangers. The sexual elements of soul and body should not be developed prematurely or disproportionately. Compensating and controlling powers are unfolded which, if not too late, serve as a steadying and guiding force during this crisis. There is danger that the thoughts, feelings and imaginations of the adolescent while centering upon self so largely may induce a condition of morbidness and abnormal self-consciousness which will repress rather than encourage a true development.

There is danger that a rigid economy of every life force may not be conserved and that a holy respect for one's body may not be realized. The motor activities should be utilized, but care should be taken that undue fatigue should not result. Excitement along any line should be guarded against, since the judgment is not yet able to cope successfully with the feelings. Some one has said that the pedagogy of this stage of development is expressed by the words, "Inspire enthusiastic activity."

At this stage of child-life, perhaps more than any other, should the question be asked, What is essential to success in life? The answer must be given in terms of physical health and vigor, as well as in those of the moral qualities known as courage, fortitude, energy, justice, etc. The symmetrical development of body, mind and heart finds its reason for realization now, if ever. There are certain, definite, positive needs that the school should supply at this period. First, the teachers should have intelligent conceptions of the adolescent stage, both as to its

dangers and possibilities. Until regular medical inspection of public schools is secured, the teacher can render most efficient service in this direction. I do not say that he should be held responsible for this knowledge, but I affirm that here is a golden opportunity to serve the race, and blessed is he who sees it and prepares for it. This knowledge, however, will not suffice. It must be accompanied by intelligent sympathy and deep-seated interest in the highest welfare of the pupils. A burning desire to be helpful will constrain one to become familiar with the means for so doing.

Second, the school must seek to plan its work for both sexes so that the cases of arrested physical development may be as few as possible. I regard this phase of the subject as of vital importance. The question is not whether in high school and college the young lady is able to maintain equal intellectual rank with her brother. She has proved her ability to do so. Nor is it whether she is brave and ambitious enough to attend school twenty days out of each school month. That also has had an affirmative answer for years. The great question is, From the view-point of her future energy and power, and from that of her relation to race development, can she afford to do the work of the schools in a boy's way? The freedom given young ladies in some eastern colleges, viz: that of being absent from classes one-fourth of the time with special excuse, and a similar custom in our own University, are steps in the right direction. But the high school has a duty also in this line and it is coming to be imperative. Greater flexibility of courses, more elective work, and larger freedom in the accomplishment of mental tasks, demand the earnest attention of school boards and superintendents. Besides these features, a gymnasium under wise medical direction should be an adjunct of our high schools. By their means our girls could be sent to college with strong, well developed bodies, as well as trained intellects, and the family, the state, and the race would be the gainers thereby.

Third, our school and city libraries should be so classified and furnished with proper books for this period of life, that the teacher and librarian could be of service to the adolescent boy and girl. The books needed should have the following qualifications: 1. They should be interesting. 2. They should contain healthy, wholesome and natural views of life. 3. They should present high ideals. 4. They should be good literature.

Fourth, the schools should be able to recognize cases of malnutrition and some of the resulting diseases, such as rickets, epilepsy, catalepsy, hysteria, St. Vitus's dance and paralysis, and counsel with parents concerning them.

Fifth, the school should do its best so to train youth that they will abstain from the use of tobacco and stimulants during this critical period, and, thus preserving their physical, mental and moral health, have some capital upon which to predicate success. A cheerful, healthy atmosphere in the home and school, good companions, good books and wise training will perpetuate that race to which the world looks for example in all qualities which point to future leadership.

In the presence of these great responsibilities, upon which such far-reaching results depend, the educational guides of our youth may well adopt the motto of Horace Mann when he gave himself to the work of education in Massachusetts: "God grant the annihilation of selfishness, a mind of wisdom and a heart of benevolence."

[NOTE — The next issue, containing the proceedings of the conferences, will appear May 28.—EDITOR.]

